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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,723	01/17/2002	Isao Noda	8487M	8629

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EXAMINER

SHORT, PATRICIA A

ART UNIT PAPER NUMBER

1712

DATE MAILED: 02/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051723

Applicant(s)

Noda et al

Examiner

Short

Group Art Unit

1712

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-20 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2, 3
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wnuk alone or in view of Noda '590, '116 and '470. Wnuk teaches compositions comprising polyhydroxyalkanoate (PHA) and polylactide (PLA) that can be used to form biodegradable fiber that are useful in forming nonwoven articles. See col. 26, lines 3-52 and col. 33, lines 31-39. PHA includes PHA copolymers taught in the Noda patents and encompassed by the PHA copolymers recited in the instant claims. See col. 14, line 22-43. Each of Noda '590, '116 and '470 teaches copolymers of polyhydroxybutyrate that are easily melt processed and can be used make fiber. See Noda '590 at col. 11, line 65 through col. 15, line 7, Noda '116 at col. 16, line 16 through col. 17, line 16 and Noda '470 at col. 17, line 27 through col. 18, line 16. As suggested by Wnuk, it would have been obvious to use a composition comprising PHA copolymer and PLA to form biodegradable fiber and nonwoven articles encompassed by the claims. Alternatively, in view of Noda '590, Noda '116 and Noda '470, it would have been obvious to use a PHA copolymer encompassed by the PHA copolymer recited in the claims as the PHA copolymer in the compositions of Wnuk to obtain compositions that are easily melt processable and use to form biodegradable fiber and nonwoven articles.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui. The reference teaches degradable fiber comprising a high melting aliphatic polyester that can be polylactic acid and a low melting polyester that can be a copolymer of butyric and/or valeric acid and a lactone such as caprolactone or butyrolactone. See col. 37, line 56 through col. 38, line 49 and col. 40, lines 1-18. The fiber can be used to form nonwoven articles having

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improved properties. See col. 44, lines 1-7. As suggested by the reference, it would have been obvious to form a biodegradable fiber comprising polylactic acid and a copolymer of butyric and/or valeric acid and caprolactone or butyrolactone and use to prepare nonwoven articles having improved properties.

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February 20, 2003

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